

AMENDMENTS TO THE CLAIMS

Claims 1-4 (Cancelled)

5. **(Currently Amended)** A reciprocating compressor comprising
a hermetic container, and
a compressing element accommodated in said hermetic container to compress
refrigerant gas, said compressing element including:
 a crankshaft including a main shaft having a main shaft axis and an eccentric
section having an eccentric section axis;
 a block forming a cylindrical cylinder having a cylinder axis;
 a piston disposed for reciprocation in said cylinder;
 a connecting rod connecting said eccentric section to said piston in such a manner
that said connecting rod swings about said eccentric section axis of said eccentric section upon
rotation of said crankshaft; and
 a balancing weight for balancing vibrations produced by operation of ~~at least one~~
a combination of said piston, said connecting rod and said eccentric section,
wherein said cylinder is disposed in an offset position such that said cylinder axis does
not cross said main shaft axis, and
 wherein said crankshaft, said piston, and said balancing weight are arranged such that,
throughout reciprocation of said piston in said cylinder, a center of gravity of said balancing
weight is always located at a position substantially opposite to said eccentric section axis with
respect to said main shaft axis but deviated, in a rotating direction of said main shaft, from a
location exactly opposite to said eccentric section axis with respect to said main shaft axis such
that said center of gravity of said balancing weight is located ~~trails~~ said eccentric section axis by
less than 180° ~~from said eccentric section axis in the rotating direction of said main shaft during~~
rotation, and
 wherein said piston and said balancing weight are arranged such that, when said piston is
at a top dead center position, the center of gravity of said balancing weight is located in a
position that is offset from said cylinder axis but not beyond a plane that includes said main shaft
axis and is parallel with said cylinder axis.

Claim 6 (Cancelled)

7. **(Previously Presented)** The reciprocating compressor of claim 5, wherein the refrigerant gas is provided in said hermetic container, and said refrigerant gas is R600a gas.
8. **(Previously Presented)** The reciprocating compressor of claim 5, further comprising an inverter arranged to drive said crankshaft, said inverter being configured to operate at a frequency not greater than a commercial power frequency.
9. **(Previously Presented)** The reciprocating compressor of claim 5, wherein said crankshaft is generally vertical.
10. **(Currently amended)** The reciprocating compressor of claim-45, wherein said center of gravity of said balancing weight, said eccentric section axis, and said main shaft axis are not displaceable relatively with respect to each other.
11. **(Currently amended)** The reciprocating compressor of claim-45, wherein said crankshaft, said piston, and said balancing weight are arranged such that, throughout reciprocation of said piston in said cylinder, said eccentric section axis, the location exactly opposite to said eccentric section axis with respect to said main shaft, and the center of gravity of said balancing weight are arranged along the rotating direction in an order starting from said eccentric section axis, then the location exactly opposite to said eccentric section axis with respect to said main shaft, and then the center of gravity of said balancing weight, such that the location exactly opposite to said eccentric axis with respect to said main shaft trails the center of gravity in rotation.
12. **(New)** The reciprocating compressor of claim 5, wherein said main shaft has only said eccentric section, said piston, said connecting rod and said balancing weight eccentrically connected thereto.

13. (New) The reciprocating compressor of claim 5, wherein eccentric rotary connection to said main shaft is provided only at said eccentric section axis.